

DIAGNOSTICS CHART WITH DIAGNOSIS CONNECTOR

ABS (DIAGNOSTICS)

D: TROUBLE CODE 21

— ABNORMAL ABS SENSOR (OPEN CIRCUIT OR INPUT VOLTAGE TOO HIGH) (FRONT RH) —

NOTE:

For the diagnostic procedure, refer to TROUBLE CODE 27. <Ref. to ABS-40, TROUBLE CODE 27 — ABNORMAL ABS SENSOR (OPEN CIRCUIT OR INPUT VOLTAGE TOO HIGH) (REAR LH) —, Diagnostics Chart with Diagnosis Connector.>

E: TROUBLE CODE 23

— ABNORMAL ABS SENSOR (OPEN CIRCUIT OR INPUT VOLTAGE TOO HIGH) (FRONT LH) —

NOTE:

For the diagnostic procedure, refer to TROUBLE CODE 27. <Ref. to ABS-40, TROUBLE CODE 27 — ABNORMAL ABS SENSOR (OPEN CIRCUIT OR INPUT VOLTAGE TOO HIGH) (REAR LH) —, Diagnostics Chart with Diagnosis Connector.>

F: TROUBLE CODE 25

— ABNORMAL ABS SENSOR (OPEN CIRCUIT OR INPUT VOLTAGE TOO HIGH) (REAR RH) —

NOTE:

For the diagnostic procedure, refer to TROUBLE CODE 27. <Ref. to ABS-40, TROUBLE CODE 27 — ABNORMAL ABS SENSOR (OPEN CIRCUIT OR INPUT VOLTAGE TOO HIGH) (REAR LH) —, Diagnostics Chart with Diagnosis Connector.>

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G: TROUBLE CODE 27

— ABNORMAL ABS SENSOR (OPEN CIRCUIT OR INPUT VOLTAGE TOO HIGH) (REAR LH) —

DIAGNOSIS:

- Faulty ABS sensor (Broken wire, input voltage too high)
- Faulty harness connector

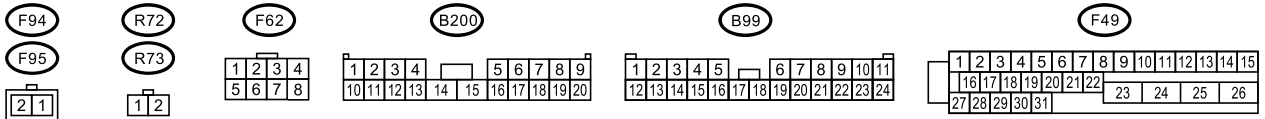
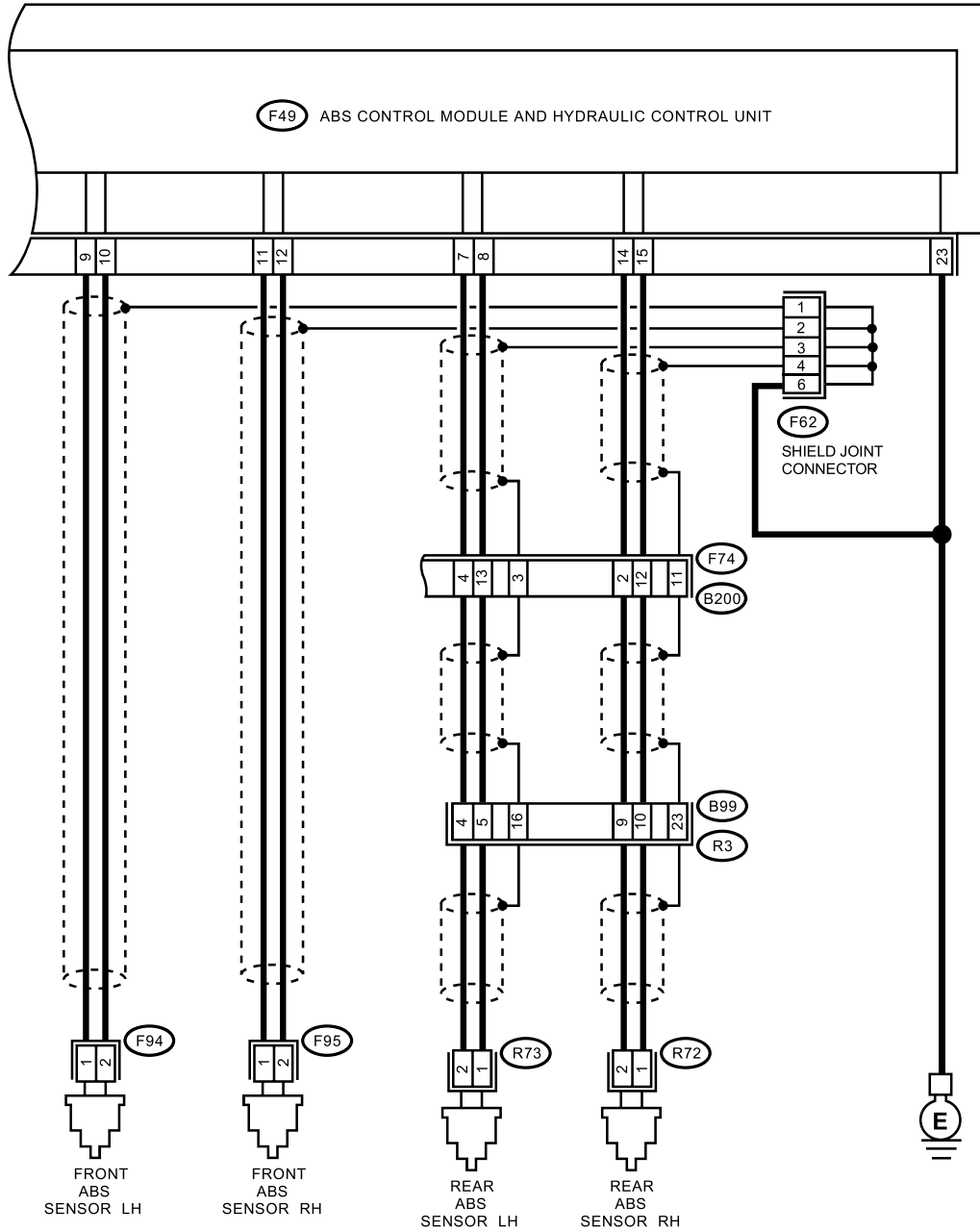
TROUBLE SYMPTOM:

- ABS does not operate.

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ABS (DIAGNOSTICS)

WIRING DIAGRAM: LHD MODEL

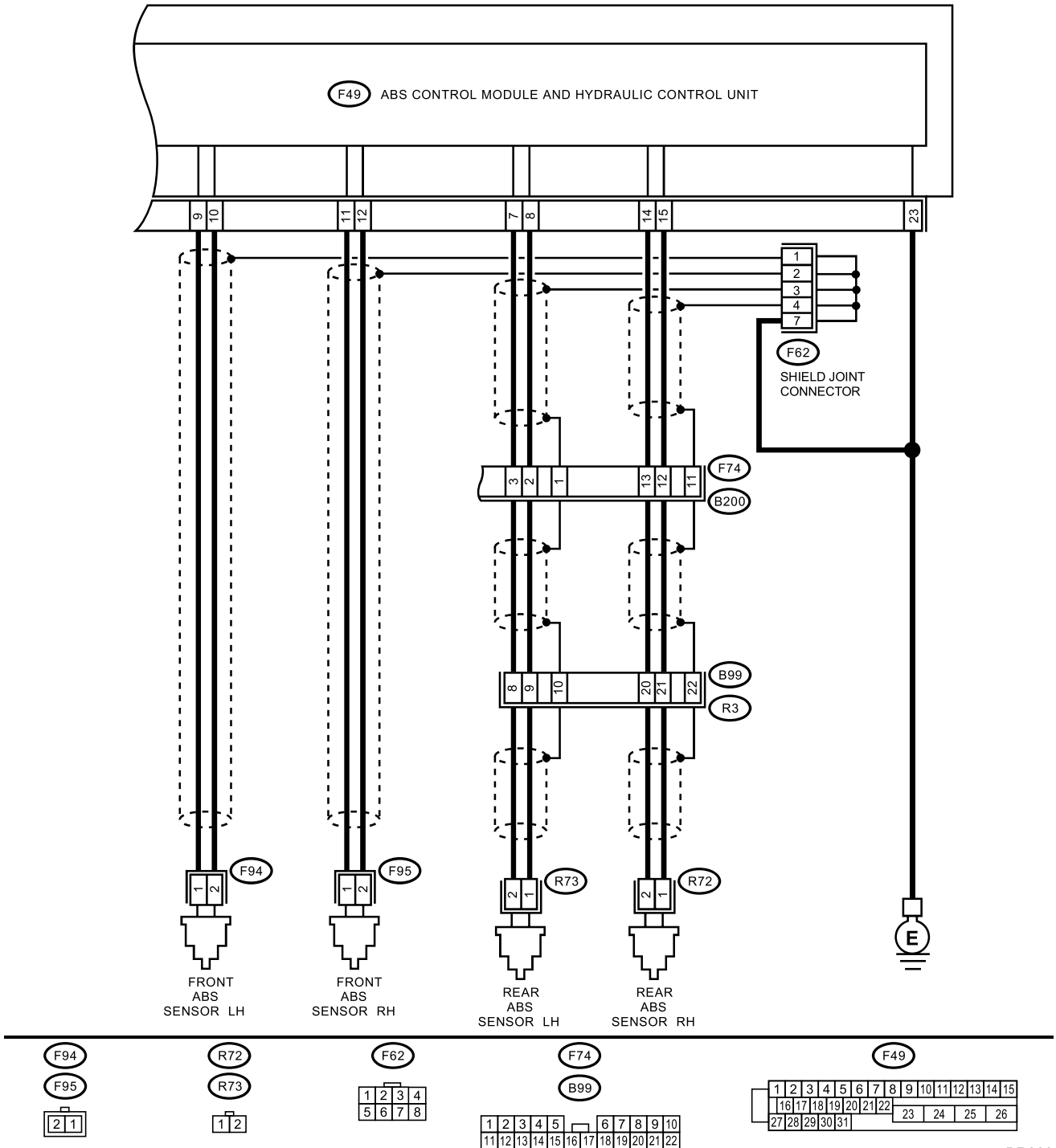


BR0037

DIAGNOSTICS CHART WITH DIAGNOSIS CONNECTOR

ABS (DIAGNOSTICS)

WIRING DIAGRAM: RHD MODEL



BR0038

DIAGNOSTICS CHART WITH DIAGNOSIS CONNECTOR

ABS (DIAGNOSTICS)

Step	Check	Yes	No
<p>1</p> <p>CHECK ABS SENSOR. 1)Turn ignition switch to OFF. 2)Disconnect connector from ABS sensor. 3)Measure resistance of ABS sensor connector terminals.</p> <p>Terminal Front RH No. 1 — No. 2: Front LH No. 1 — No. 2: Rear RH No. 1 — No. 2: Rear LH No. 1 — No. 2:</p>	Is the resistance between 1 and 1.5 kΩ?	Go to step 2.	Replace ABS sensor. Front: <Ref. to ABS-14, Front ABS Sensor.> Rear: <Ref. to ABS-17, Rear ABS Sensor.>
<p>2</p> <p>CHECK BATTERY SHORT OF ABS SENSOR. 1)Disconnect connector from ABSCM&H/U. 2)Measure voltage between ABS sensor and chassis ground.</p> <p>Terminal Front RH No. 1 (+) — Chassis ground (-): Front LH No. 1 (+) — Chassis ground (-): Rear RH No. 2 (+) — Chassis ground (-): Rear LH No. 2 (+) — Chassis ground (-):</p>	Is the voltage less than 1 V?	Go to step 3.	Replace ABS sensor. Front: <Ref. to ABS-14, Front ABS Sensor.> Rear: <Ref. to ABS-17, Rear ABS Sensor.>
<p>3</p> <p>CHECK BATTERY SHORT OF ABS SENSOR. 1)Turn ignition switch to ON. 2)Measure voltage between ABS sensor and chassis ground.</p> <p>Terminal Front RH No. 1 (+) — Chassis ground (-): Front LH No. 1 (+) — Chassis ground (-): Rear RH No. 2 (+) — Chassis ground (-): Rear LH No. 2 (+) — Chassis ground (-):</p>	Is the voltage less than 1 V?	Go to step 4.	Replace ABS sensor. Front: <Ref. to ABS-14, Front ABS Sensor.> Rear: <Ref. to ABS-17, Rear ABS Sensor.>
<p>4</p> <p>CHECK HARNESS/CONNECTOR BETWEEN ABSCM&H/U AND ABS SENSOR. 1)Turn ignition switch to OFF. 2)Connect connector to ABS sensor. 3)Measure resistance between ABSCM&H/U connector terminals.</p> <p>Connector & terminal Trouble code 21 / (F49) No. 11 — No. 12: Trouble code 23 / (F49) No. 9 — No. 10: Trouble code 25 / (F49) No. 14 — No. 15: Trouble code 27 / (F49) No. 7 — No. 8:</p>	Is the resistance between 1 and 1.5 kΩ?	Go to step 5.	Repair harness/connector between ABSCM&H/U and ABS sensor.
<p>5</p> <p>CHECK BATTERY SHORT OF HARNESS. Measure voltage between ABSCM&H/U connector and chassis ground.</p> <p>Connector & terminal Trouble code 21 / (F49) No. 11 (+) — Chassis ground (-): Trouble code 23 / (F49) No. 9 (+) — Chassis ground (-): Trouble code 25 / (F49) No. 14 (+) — Chassis ground (-): Trouble code 27 / (F49) No. 7 (+) — Chassis ground (-):</p>	Is the voltage less than 1 V?	Go to step 6.	Repair harness between ABSCM&H/U and ABS sensor.

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Step	Check	Yes	No
6 CHECK BATTERY SHORT OF HARNESS. 1) Turn ignition switch to ON. 2) Measure voltage between ABSCM&H/U connector and chassis ground. Connector & terminal <i>Trouble code 21 / (F49) No. 11 (+) — Chassis ground (-):</i> <i>Trouble code 23 / (F49) No. 9 (+) — Chassis ground (-):</i> <i>Trouble code 25 / (F49) No. 14 (+) — Chassis ground (-):</i> <i>Trouble code 27 / (F49) No. 7 (+) — Chassis ground (-):</i>	Is the voltage less than 1 V?	Go to step 7.	Repair harness between ABSCM&H/U and ABS sensor.
7 CHECK INSTALLATION OF ABS SENSOR. Turn ignition switch to OFF. Tightening torque: <i>32 N·m (3.3 kgf-m, 24 ft-lb)</i>	Are the ABS sensor installation bolts tightened securely?	Go to step 8.	Tighten ABS sensor installation bolts securely.
8 CHECK ABS SENSOR GAP. Measure tone wheel to ABS sensor piece gap over entire perimeter of the wheel. Front wheel <i>0.3 — 0.8 mm (0.012 — 0.031 in)</i> Rear wheel <i>0.7 — 1.2 mm (0.028 — 0.047 in)</i>	Is the gap within the specifications?	Go to step 9.	Adjust the gap. NOTE: Adjust the gap using spacers (Part No. 26755AA000). If spacers cannot correct the gap, replace worn sensor or worn tone wheel.
9 CHECK TONE WHEEL RUNOUT. Measure tone wheel runout.	Is the runout less than 0.05 mm (0.0020 in)?	Go to step 10.	Replace tone wheel. Front: <Ref. to ABS-20, Front Tone Wheel.> Rear: <Ref. to ABS-21, Rear Tone Wheel.>
10 CHECK GROUND SHORT OF ABS SENSOR. 1) Turn ignition switch to ON. 2) Measure resistance between ABS sensor and chassis ground. Terminal <i>Front RH No. 1 — Chassis ground:</i> <i>Front LH No. 1 — Chassis ground:</i> <i>Rear RH No. 1 — Chassis ground:</i> <i>Rear LH No. 1 — Chassis ground:</i>	Is the resistance more than 1 MΩ?	Go to step 11.	Replace ABS sensor and ABSCM&H/U. Front: <Ref. to ABS-14, Front ABS Sensor.> Rear: <Ref. to ABS-17, Rear ABS Sensor.> and <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>

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Step	Check	Yes	No
11 CHECK GROUND SHORT OF HARNESS. 1)Turn ignition switch to OFF. 2)Connect connector to ABS sensor. 3)Measure resistance between ABSCM&H/U connector terminal and chassis ground. <i>Connector & terminal</i> <i>Trouble code 21 / (F49) No. 11 — Chassis ground:</i> <i>Trouble code 23 / (F49) No. 9 — Chassis ground:</i> <i>Trouble code 25 / (F49) No. 14 — Chassis ground:</i> <i>Trouble code 27 / (F49) No. 7 — Chassis ground:</i>	Is the resistance more than 1 MΩ?	Go to step 12.	Repair harness between ABSCM&H/U and ABS sensor. Replace ABSCM&H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>
12 CHECK POOR CONTACT IN CONNECTORS.	Is there poor contact in connectors between ABSCM&H/U and ABS sensor?	Repair connector.	Go to step 13.
13 CHECK ABSCM&H/U. 1)Connect all connectors. 2)Erase the memory. 3)Perform inspection mode. 4)Read out the trouble code.	Is the same trouble code as in the current diagnosis still being output?	Replace ABSCM&H/U. <Ref. to ABS-7, ABS Control Module and Hydraulic Control Unit (ABSCM&H/U).>	Go to step 14.
14 CHECK ANY OTHER TROUBLE CODES APPEARANCE.	Are other trouble codes being output?	Proceed with the diagnosis corresponding to the trouble code.	A temporary poor contact. NOTE: Check harness and connectors between AB-SCM&H/U and ABS sensor.